

What is Claimed:

1. A storage platform comprising:
 - a database engine;
 - a data store implemented on the database engine for storing data therein, wherein the data store implements a data model that supports the organization, searching, sharing, synchronization, and security of data stored in the data store and wherein specific types of data are described in schemas; and
 - an application programming interface that enables application programs to access services and capabilities of the storage platform and to access the data described in the schemas,
 - wherein the storage platform further supports interoperability with existing file systems, enables users and systems to synchronize data stored in different instances of the data store, and provides the ability for application programs to be notified about and to track changes made to the data in the data store.
2. The storage platform recited in claim 1, wherein data in the data store is defined in terms of items, elements, and relationships, wherein an item is a unit of data storable in the data store and comprises one or more elements, an element is an instance of a type comprising one or more fields, and a relationship is a link between at least two items.
3. The storage platform recited in claim 2, further comprising a set of schemas that define different types of items, elements, and relationships, and wherein the application programming interface comprises a class for each of the different items, elements, and relationships defined in the set of schemas.

4. The storage platform recited in claim 3, wherein data may also be stored in the data store in the form of an extension to an existing item type, and wherein the application programming interface comprises a class for each different item extension.

5. The storage platform recited in claim 3, wherein the class for each type of item, element, and relationship is generated automatically based on the set of schemas that define each type of item, element, and relationship.

6. The storage platform recited in claim 3, wherein the classes for each type of item, element, and relationship define a set of data classes, and wherein the application programming interface further comprises a second set of classes that define a common set of behaviors for the data classes.

7. The storage platform recited in claim 6, wherein the second set of classes comprise a first class that represents a storage platform scope and that provides the context for queries on the data store and a second class the represents the results of a query on the data store.

8. The storage platform recited in claim 3, wherein the different types of items, elements, and relationships in the data store are implemented in the database engine as user-defined types (UDT).

9. The storage platform recited in claim 8, wherein the application programming interface provides a query model that enables application programmers to form queries based on various properties of the items in the data store, in a manner that insulates the application programmer from the details of the query language of the database engine.

10. The storage platform recited in claim 2, wherein a plurality of items in the data store may comprise an Item Folder and at least one other item that is a member of the Item Folder.

11. The storage platform recited in claim 2, wherein a plurality of items in the data store may comprise a Category and at least one other item that is a member of said Category.
12. The storage platform recited in claim 2, wherein a relationship between two items is established automatically by a hardware/software interface system.
13. The storage platform recited in claim 2, wherein an element is understandable by a hardware/software interface system.
14. The storage platform recited in claim 2, wherein a relationship comprises an element.
15. The storage platform recited in claim 3, wherein said set of schemas comprises a Core Schema that defines a set of Core Items by which the storage platform understands and directly processes said set of Core Items in a predetermined and predictable way.
16. The storage platform recited in claim 15, wherein each type of item defined in the set of Core Items is derived from a single common base item.
17. The storage platform recited in claim 16, wherein said single common base item is a foundational item in a base schema.
18. The storage platform recited in claim 1, wherein said database engine comprises a relational database engine.
19. The storage platform recited in claim 18, wherein said relational database engine comprises a relational database engine with object relational extensions.